

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A magnetic memory comprising:

a first magnetoresistance effect element having a magnetic recording layer;

a first wiring extending in a first direction on or below the first magnetoresistance effect element;

a covering layer provided on at least both sides of the first wiring, the covering layer being made of magnetic material, ~~and the covering layer having a uniaxial anisotropy in the first direction along which a magnetization of the covering layers occurs easily;~~ and a condition  $L1 > (2L2 + L3)$  being satisfied where  $L1$  is a length of the covering layer along a lengthwise direction of the first wiring,  $L2$  is a width of the covering layer provided on the both sides of the first wiring, and  $L3$  is a width of the covering layer provided on an upper or lower side of the first wiring; and

a writing circuit configured to pass a current through the first wiring in order to record [[an]] information in the magnetic recording layer by a magnetic field generated by the current.

Claim 2 (Currently Amended): A magnetic memory according to claim 1, wherein a ~~total length of the covering layer along a circumference direction of the first wiring is equal to or smaller than one micrometer~~ the covering layer is provided on the upper or lower side of the first wiring.

Claim 3 (Currently Amended): A magnetic memory according to claim [[1]]2, wherein ~~a thickness of the covering layer is equal to or smaller than 0.05 micrometer~~ the

covering layer is separately provided on the both sides of the first wiring and on the upper or lower side of the first wiring.

Claim 4 (Currently Amended): A magnetic memory according to claim 1, further comprising a second magnetoresistance effect element having a magnetic recording layer, and provided on or below the first wiring and the first magnetoresistance effect element,

~~wherein the covering layer is divided into a plurality of parts, the parts being parallel to each other and extending in the first direction~~ the covering layer is provided on the both sides of the first wiring and another covering layer is inserted in the first wiring.

Claim 5 (Currently Amended): A magnetic memory according to claim 1,  
~~wherein a layer made of an antiferromagnetic material is laminated with the covering layer~~ is provided only on the both sides of the first wiring, L3 being zero.

Claim 6 (Currently Amended): A magnetic memory according to claim 1, wherein ~~the covering layer has a projecting part which projects toward the magnetoresistance effect element from the first wiring~~ a layer made of an antiferromagnetic material is laminated with the covering layer.

Claim 7 (Currently Amended): A magnetic memory according to claim 1, wherein ~~the covering layer has a divided part which is provided separate from a part of the covering layer adjoining the first wiring, and the divided part being provided close to the magnetoresistance effect element~~ the covering layer includes a material selected from the group consisting of,

(1) a nickel-iron alloy,

(2) a cobalt-nickel alloy,

(3) a cobalt-iron-nickel alloy,

(4) an alloy of cobalt and at least one of zirconium, hafnium, niobium,  
tantalum and titanium,

(5) an amorphous alloy of a (Co, Fe, Ni)-(Si, B)-(P, Al, Mo, Nb, Mn)-system,

(6) a nano-granular metal-nonmetal material of a (Fe, Co)-(B, Si, Hf, Zr, Sm,  
Ta, Al)-(F, O, N)-system, and

(7) an insulative ferrite.

Claim 8 (Currently Amended): A magnetic memory according to claim 1, ~~wherein the covering layer is made of a material selected from the group consisting of nickel iron alloy, cobalt nickel alloy, cobalt iron nickel alloy, alloy of cobalt and at least one of zirconium, hafnium, niobium, tantum and titanium, amorphous alloy of a (Co, Fe, Ni) (Si, B) (P, Al, Mo, Nb, Mn) system, a nano granular metal nonmetal material of a (Fe, Co) (B, Si, Hf, Zr, Sm, Ta, Al) (F, O, N) system, and an insulative ferrite~~ further comprising a conductive layer adjoining an outer side of the covering layer of the first wiring and including a conductive nonmagnetic material.

Claim 9 (Currently Amended): A magnetic memory ~~according to claim 1, further comprising: a conductive layer adjoining an outer side of the covering layer taken from the first wiring and being made of a conductive nonmagnetic material~~

a first wiring extending in a first direction;

a first magnetoresistance effect element provided on the first wiring and having a magnetic recording layer;

a second wiring provided on the first magnetoresistance effect element and extending in a direction across the first direction;

a covering layer provided on at least both sides of at least one of the first and second wirings, the covering layer being made of magnetic material, and a condition  $L1 > (2L2 + L3)$  being satisfied where L1 is a length of the covering layer along a lengthwise direction of the one of the first and second wirings, L2 is a width of the covering layer provided on the both sides of the first wiring, and L3 is a width of the covering layer provided on an upper or lower side of the first wiring; and

a writing circuit configured to pass currents through the first and second wirings in order to record one of two values of two-valued information in the magnetic recording layer by magnetic fields generated by the currents.

Claim 10 (Currently Amended): A magnetic memory according to claim 9, wherein ~~the conductive nonmagnetic material includes copper as its main component~~ the covering layer is provided on the upper or lower side of the one of the first and second wirings.

Claim 11 (Currently Amended): A magnetic memory according to claim ~~[[1]]~~ 9, wherein ~~the covering layer is made of a magnetic material having a crystal magnetic anisotropy constant K1 equal to or smaller than  $5 \times 10^4$  erg/cc~~ the covering layer is separately provided on the both sides of the one of the first and second wirings and on the upper or lower side of the one of the first and second wirings.

Claim 12 (Currently Amended): A magnetic memory according to claim 9,  
~~comprising:~~

~~a first wiring extending in a first direction;~~

~~a magnetoresistance effect element provided on the first wiring and having a magnetic recording layer;~~

~~a second wiring extending in a direction across the first direction on the  
magnetoresistance effect element;~~

~~a covering layer provided on at least both sides of at least one of the first and second  
wirings, the covering layer being made of magnetic material, and the covering layer having a  
uniaxial anisotropy in a lengthwise direction of the wiring on which the covering layer is  
provided, along the lengthwise direction of a magnetization of the covering layer occurring  
easily; and~~

~~a writing circuit configured to pass currents through the first and second wirings in  
order to record one of the two values of two-valued information in the magnetic recording  
layer by magnetic fields generated by the currents~~

wherein the covering layer is provided only on the both sides of the second wiring, L3  
being zero.

Claim 13 (Currently Amended): A magnetic memory according to claim [[12]] 9,  
~~wherein a total length of the covering layer along a circumference direction of the wiring on  
which the covering layer is provided is equal to or smaller than one micrometer~~ further  
comprising a second magnetoresistance effect element having a magnetic recording layer,  
and provided on the second wiring and the first magnetoresistance effect element,

wherein the covering layer is provided on the both sides of the second wiring and  
another covering layer is inserted in the second wiring.

Claim 14 (Currently Amended): A magnetic memory according to claim [[12]] 9,  
~~wherein a thickness of the covering layer is equal to or smaller than 0.05 micrometer~~ a  
layer made of an antiferromagnetic material is laminated with the covering layer.

Claim 15 (Currently Amended): A magnetic memory according to claim ~~[[12]]~~ 9,  
wherein ~~the covering layer is divided into a plurality of parts, the parts being parallel to each  
other and extending in a lengthwise direction of the wiring on which the covering layer is  
provided~~ the covering layer includes a material selected from the group consisting of,

(1) a nickel-iron alloy,

(2) a cobalt-nickel alloy,

(3) a cobalt-iron-nickel alloy,

(4) an alloy of cobalt and at least one of zirconium, hafnium, niobium, tantalum and  
titanium,

(5) an amorphous alloy of a (Co, Fe, Ni)-(Si, B)-(P, Al, Mo, Nb, Mn)-system,

(6) a nano-granular metal-nonmetal material of a (Fe, Co)-(B, Si, Hf, Zr, Sm, Ta, Al)-  
(F, O, N)-system, and

(7) an insulative ferrite.

Claim 16 (Currently Amended): A magnetic memory ~~according to claim 12, wherein~~  
~~a layer made of an antiferromagnetic material is laminated with the covering layer~~  
comprising:

a first wiring extending in a first direction;

a first magnetoresistance effect element provided on the first wiring and having a  
magnetic recording layer;

a second wiring provided on the first magnetoresistance effect element and extending  
in a direction across the first direction;

a covering layer provided on at least both sides of at least one of the first and second  
wirings, the covering layer being made of magnetic material, and a condition  $L1 > (2L2 + L3)$   
being satisfied where  $L1$  is a length of the covering layer along a lengthwise direction of the

one of the first and second wirings, L2 is a width of the covering layer provided on the both sides of the first wiring, and L3 is a width of the covering layer provided on an upper or lower side of the first wiring;

a conductive layer adjoining an outer side of the covering layer taken from the adjoining wiring and being made of a conductive nonmagnetic material; and

a writing circuit configured to pass currents through the first and second wirings in order to record one of two values of two-valued information in the magnetic recording layer by magnetic fields generated by the currents.

Claim 17 (Currently Amended): A magnetic memory according to claim [[12]] 16, wherein ~~the covering layer is provided on each of the first and second wirings, a first layer made of an antiferromagnetic material having a first blocking temperature is laminated with the covering layer provided on the first wiring, a second layer made of an antiferromagnetic material having a second blocking temperature different from the first blocking temperature is laminated with the covering layer provided on the second wiring~~ the covering layer is provided on the upper or lower side of the one of the first and second wirings.

Claim 18 (Currently Amended): A magnetic memory according to claim [[12]]16, wherein ~~the covering layer has a projecting part which projects toward the magnetoresistance effect element from the wiring on which covering layer is provided~~ the covering layer is separately provided on the both sides of the one of the first and second wirings and on the upper or lower side of the one of the first and second wirings.

Claim 19 (Currently Amended): A magnetic memory according to claim [[12]] 19,

~~wherein the covering layer has a divided part which is provided separate from a part of the covering layer adjoining the wiring, and the divided part being provided close to the magnetoresistance effect element~~ the covering layer is provided only on the both sides of the second wiring, L3 being zero.

Claim 20 (Currently Amended): A magnetic memory according to claim [[12]] 16, ~~wherein the comprising layer is made of a material selected from the group consisting of nickel-iron alloy, cobalt-nickel alloy, cobalt-iron-nickel alloy, alloy of cobalt and at least one of zirconium, hafnium, niobium, tantalum and titanium, amorphous alloy of a (Co, Fe, Ni) (Si, B) (P, Al, Mo, Nb, Mn) system, a nano-granular metal-nonmetal material of a (Fe, Co) (B, Si, Hf, Zr, Sm, Ta, Al) (F, O, N) system, and an insulative ferrite~~ further comprising a second magnetoresistance effect element having a magnetic recording layer, and provided on the second wiring and the first magnetoresistance effect element,

wherein the covering layer is provided on the both sides of the second wiring and another covering layer is inserted in the second wiring.

Claims 21-27 (Canceled).